Scott D. Baker
Emily B. Kirsch (EB 4216)
Reed Smith LLP
599 Lexington Avenue
New York, New York 10022
(212) 521-5400
Attorneys for Plaintiff

Of Counsel:
William R. Overend

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

PALADYNE SYSTEMS, Inc., a Delaware Corporation, Plaintiff, v. STPENABLE, LTD., a United Kingdom Company, Defendant.	: Case No.:07 CV 8421 (LAP) : : : : : : : : : : : : :

DECLARATION OF SOL ZLOTCHENKO

SOL ZLOTCHENKO, declares as follows:

1.   I am the Chief Technology Officer of Paladyne Systems, Inc. ("Paladyne"). I submit this declaration in support of Paladyne's Order to Show Cause for preliminary injunction against STPenable, Ltd ("STPenable"). I have personal knowledge of the facts set forth below, except as to those matters asserted upon information and belief, and as to those matters, I have set forth the facts that form the basis of those beliefs.

2.   In my role as Chief Technology Officer of Paladyne, I oversee all aspects of operations such as development and product management for the complete suite of Paladyne products, including Paladyne Security Master. I received my B.S. and M.S. degrees in electrical engineering from Columbia University and have a vast experience in the financial services industry including a position at Goldman Sachs where I worked in various roles across multiple technology divisions. I have been involved in the hedge fund industry for the past five years.

3.   I understand that among other things, David Wynter claims that he does not know what trade secrets Paladyne claims have been misappropriated by him and that he himself created his own golden copy "from the ground up" with no reference whatsoever to any of Paladyne's confidential and proprietary know-how. These claims are preposterous. I will address them by providing a more detailed description of our product and the trade secrets involved and the absolute impossibility of one man working alone, no matter how gifted and talented he claims to be, building a golden copy in one month.

Description of Security Master and the Golden Copy

4.   Paladyne Security Master is the trade name of Paladyne's security master product. A security master is a software product that stores, organizes and provides the means for users to maintain the universe of securities reference data. There are several security master products on the market. Most existing products market primarily to banks and larger institutions. Paladyne Security Master is the leading security master product in the hedge fund market.

5.   All security master products consist of three major components: (1) an ETL[1] tool; (2) the "Golden Copy" database; and (3) a user interface (or "UI"). There is also a

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[1] An "ETL" tool is simply a software tool used to *extract* data from one source, *translate* it as necessary, and *load* it into a pre-designed database. ETL tools are commodities. Microsoft's SSIS tool is an example of an ETL tool that is often used in security master products. Paladyne uses defendant's Transformer.

fourth element that involves distributing data to other related financial software products. A diagram showing the elements of Security Master is attached hereto as Exhibit A.

6.   Security master products collect raw securities-related data from market feeds such as Bloomberg ,Reuters, or others. These feeds are delivered in what are known as "flat-files." While a huge volume of data is presented through these feeds, it is not presented in a useful or manageable form. In addition, each feed is represented in a vendor-specific format (i.e., Reuters-specific data feed format is very different from Bloomberg's data feed format). In order to effectively take advantage of these different feeds, they must be transformed into a consolidated "Golden Copy" that is a vendor-neutral storage database. The process of converting this data from its original sources and forms to a consolidated "Golden Copy" database involves two steps.

7.   First, to begin the process of organizing the data, an ETL tool is needed to take the data from these feeds, transform the data as necessary into a structured form and load into a relational database. At this stage, there is a distinct database for each vendor feed. We refer to these vendor specific databases as "Vendor Copies". *See Exhibit A.* The mapping process that moves the data from the flat file feed into the vendor-specific database is a relatively straightforward process because the fields of each database are designed to match the data from the feeds to retain their original representation.

8.   Second, the data is moved from the Vendor Copies to the Golden Copy database. This process involves more complex business logic to mapping. For example, the data from the various vendors may be presented in any number of different formats. Therefore, in order to load it into a single Golden Copy database, the data must conform to a single (and functionally desirable) format. Moreover, where overlapping information comes in from two different sources, a choice needs to be made as to which source should be used. The business

logic involved in implementing these choices and reconciling feeds between vendors is a proprietary technology.

9.   The Golden Copy database compiles and unifies all the vendor copy databases and is the "superset" of all the data provided from all the feeds. *See Exhibit A.* This is a massive and highly complex product. To give a sense of the magnitude of what is involved, consider just one type of security that needs to be accounted for in the Golden Copy database: a convertible bond. A convertible bond may have 100 or more data parameters in its description, ranging from basic terms such as coupon and maturity to the more complex and extensive terms such as put and call schedules. A golden copy database must be designed and structured to relate not only to the data parameters for the convertible bond and all of its contractual terms and conditions, but also to the underlying equity security of the issuer and all of the data parameters that relate to that security. Now consider that there are 40 or so security types, and you begin to understand the complexity and magnitude of a golden copy database.

Paladyne's Trade Secrets

10.   Paladyne's Golden Copy is designed and built with enormous amounts of confidential technology and proprietary know-how. It took two years of development and extensive research and development of the product team to develop the Golden Copy (the extent of which is set forth in the accompanying declaration of Sameer Shalaby). We have spent enormous amounts of time and effort working with various structures, only to find that certain preliminary ideas were not as effective and efficient as the industry would have required which led to additional reworking for streamlining and optimization. Other ideas may have worked but through our experience, continuing research, and customer feedback have been greatly improved. The current version of the Golden Copy embodies what we have learned from our research, user acceptance testing, and customer production usage about what works well and efficiently and what is extraneous, cumbersome or expensive. Our Golden Copy also incorporates over two

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years of confidential information about customer preferences and customer feedback as applied and integrated into the system. This information ranges from an in-depth understanding of what functionalities are needed by today's hedge fund market to the identification and resolution of deeply embedded data idiosyncrasies or abnormalities that could be found through "battle-testing."

11.   More specifically, the business logic described above must be designed and engineered as part of the development of the Golden Copy. The know-how involved in *designing* the business logic and then in *implementing* these concepts either in the source code that creates the interface between the Vendor Copies and the Golden Copy or in stored procedures that reside within the Golden Copy itself are valuable trade secrets of Paladyne.

12.   The Golden Copy is also designed to run a multitude of internal testing and validation procedures to ensure that the data is in fact normalized prior to uploading. The design of the data validation processes and error notification are valuable trade secrets of Paladyne.

13.   And, perhaps most fundamentally, the schema of the Golden Copy itself including the structure of the tables and columns necessary to store and organize the multitude of data as well as the cross referencing and built in relationships among the various pieces of data are valuable trade secrets of Paladyne.

14.   In addition, and as a result, Paladyne's Golden Copy database has certain proprietary features that are unique to Paladyne, either in concept or in implementation or both. These features exist only by virtue of having the technical and subject matter expertise in understanding how data needs to maintained and stored to make it useful for our clients in running their operations. Certain examples follow:

- *Security Identifier Cross-Referencing.* Each data vendor has a unique system of identifiers assigned to each security. There are no industry standards and these identifiers need to be "normalized" to recognize and automatically and efficiently

cross reference against one another in order to facilitate the aggregation and manipulation of data from multiple sources. The Golden Copy has normalized and integrated these identifiers by introducing an internal Paladyne vendor-neutral independent identifier scheme that never changes. Both the approach to solving this problem and the technological solution as implemented in the architecture and design of the Golden Copy, are examples of trade secrets of Paladyne.

- *Vendor Copy Gateway.* The Gateway is an interface between the vendor copy databases and the Golden Copy that allows for an "on-demand" retrieval of certain security related data a client may find to be too expensive or cumbersome to be automatically loaded. For example, options or futures expire and rotate based on frequent expiration schedules which, when loaded into the Golden Copy creates extraneous maintenance processes to keep the data synchronized with the market. A client may choose not to have so much data automatically updated and instead rely on the Gateway to retrieve the information only on demand. This is not only a performance-enhancer but also a cost-optimizer since many data feeds charge for retrievals per security and automatic updates of unnecessary data can become prohibitively expensive to some clients. The Vendor Copy Gateway, both in its approach to solving this problem and in the implementation of the solution in the architecture and design of the Golden Copy, is an example of a trade secret of Paladyne.

- *Historical data storage.* The Golden Copy is designed to allow a user to retain historical view of a particular security data element, e.g., the view of the security one or three or six months earlier, whether the changes are attributable to automatic updates or to an individual override making manual changes to the data. This feature, both in its approach to providing this functionality and in the architecture and design of the Golden Copy, is an example of a trade secret of Paladyne.

- *Audit Trail.* The Golden Copy has built in a scheme of user permissions that allows users with the appropriate permissions levels to alter the data. The Golden Copy also keeps and makes accessible the audit trail of any and such changes. This feature, both in its approach to providing this functionality and in the architecture and design of the Golden Copy, is an example of a trade secret of Paladyne.

- *Exotic Securities Templates.* A key element of the design of the Golden Copy database includes generic templates that can be user defined to accommodate any kind of newly invented instrument. Our hedge fund clients are constantly constructing new derivatives and it is not possible to design a database already set up to accommodate every kind of security that will be devised. However, based on our experience and know-how, we have designed templates at just the appropriate level of genericism to make customization by the user quick and efficient. This feature, both in its approach to providing this functionality and in the architecture and design of the Golden Copy, is an example of a trade secret of Paladyne.

- *Document Management.* Again, many securities held by our hedge fund clients may be non-public, non-standard contract based instruments (such as a swap). In addition to the Golden Copy's customization ability, it also has the ability to store and display the actual contract between our client and a counter-party. Further, the Golden Copy is designed to establish a relationship and link all security related documents and additional data involving a particular counter-party. This

feature, both in its approach to providing this functionality and in the architecture and design of the Golden Copy, is an example of a trade secret of Paladyne.

- *Legal Entity Structures.* Another key data relationship is built in to Paladyne's Golden Copy is the ownership structures and relationships of issuers. Golden Copy stores, organizes and makes available information relating to both the holdings of and the ownership structure of an issuer. This feature, both in its approach to providing this functionality and in the architecture and design of the Golden Copy, is an example of a trade secret of Paladyne.

15.   Our trade secrets are not known outside of Paladyne's business with the exception of certain strategic clients who are subject to strict confidentiality agreements. The existence of the above features of the Golden Copy database are apparent to our clients from use of the front end of Paladyne Security Master. Certain of these features may appear in competitive products, certain ones do not.

16.   What is not known and is not at all readily ascertainable is the full universe of relationships that have been built in to the architecture and schema of the Golden Copy that allow these features to be implemented. Understanding what the data relationships are and anticipating what they may come to be in a quickly evolving market – is critical to the useful presentation of securities data to sophisticated users. And the parameters of what constitutes the useful presentation of data has itself been learned in great part through two years of confidential customer relationships and feedback. One cannot know, simply by working with the front end of the product, the full extent of the data relationships programmed into the database. Some of the relational concepts can be derived from viewing the features of the product. Not all can. And certainly the methods of structuring the database are not at all ascertainable.

17.   It is not possible to duplicate the Golden Copy database by user access to the front-end only. The underlying design is not accessible to a user. While it is possible, on an *ad hoc* basis, to make assumptions about some of the data relationships that must exist based on the functionalities, there is no systematic way to "reverse engineer" the database. Additionally,

all stored procedures used in the Golden Copy are encrypted and are virtually impossible to decrypt.

18.   Mr. Wynter's claim that a successful, functioning golden copy database can be created in one month by an experienced data modeler with financial background with no more than a review of publicly available information and financial textbooks is preposterous. The simple fact that the Golden Copy is populated by largely publicly available information does not mean that the architecture and schema of the database that organizes the data is obvious. There may be hundreds of ways of build such a database. Not all of them will work, and even fewer will work well. By analogy, there are dozens of excellent textbooks on how to build a relational database. This does not mean that any data modeler in a month or so can create a product to compete with Oracle or Microsoft. In addition, data idiosyncrasies and shortcomings that impacted the Golden Copy design cannot be extracted from any public or other readily available sources.

STPenable's Misappropriation

19.   In his declaration, David Wynter freely admits that he has had unfettered access to the Golden Copy and other elements and features of Paladyne Security Master. *See, e.g., Wynter Decl. at ¶ 21.* He also admits that he has been involved with or at least privy to discussions regarding the design and evolution of the Golden Copy and other elements of Paladyne Security Master. *Wynter Decl. at ¶ 22.* He also admits to have copied Paladyne's Golden Copy and installed it on Lipper's computers for their use and his own commercial benefit. *Wynter Decl. at ¶32.*

20.   Mr. Wynter's access includes intimate knowledge of all the above trade secrets identified in paragraphs 10-18 above. As an experienced, smart and talented software developer, once he has had access to the Paladyne way of designing and building a database and its source code, he is unlikely to "forget" what he has learned. It defies common sense to assert,

as Mr. Wynter does, that despite full and intimate knowledge of Paladyne's Golden Copy, he designed his own "from the ground up" with *no reference to that knowledge whatsoever.*

21.   Mr. Wynter misses the point (or purposely obfuscates the point) about our trade secrets and the use he has made of them. He focuses on whether the specific expression or programming language of his product would look identical to Paladyne Security Master in a side by side comparison. There may well be such direct copying here, but Paladyne has not been given access to STPenable's product in order to make that assessment.

22.   Regardless, in "building" his golden copy, Mr. Wynter was faced with hundreds of decisions about how to approach the problems of normalizing, defining, organizing, and cross-referencing the data. As a result of his access to Paladyne's Golden Copy, Mr. Wynter knows how Paladyne has resolved each of those decisions. That knowledge enabled Mr. Wynter to recreate much of the architecture and schema in the same way as Paladyne. Indeed even where he did not replicate Paladyne's technology, any difference in Mr. Wynter's design would also have been informed by his access to Paladyne's secrets. Armed with the intimate knowledge of Paladyne's successes as well as its developmental failures or dead ends, Mr. Wynter was able to gain a free ride head start off of Paladyne team's research and development.

23.   Moreover, for Mr. Wynter to claim that he built his golden copy "from the ground up" disregards reality. Having lived with access to and worked directly with Paladyne's source code and designs for two years, the idea that he could ever return to ground zero in the realm of golden copy databases for securities data is just not possible. The absurdity of this proposition is confirmed by his claim that he alone built in one month what I understand has taken other sophisticated companies 10 man-years. *See e.g., Kouperman Decl.* ¶ *23.*

Differences Cited By Wynter Are Inconsequential

24.   Mr. Wynter alleges a few differences between his golden copy and Paladyne's Golden Copy. While it is not possible for Paladyne to even assess the truth of these statements (because defendant refuses to grant Paladyne access to STPenable's product), even assuming the description of Mr. Wynter's description of his product to be accurate, the differences are inconsequential.

25.   First, Mr. Wynter states that Lipper does not have a viewing application like Paladyne Security Master. *Wynter Decl. at ¶ 35.* While a user interface is a critical component of a complete security master product, this case is about the Golden Copy. The user interface *displays* functionalities that the underlying Golden Copy is able to perform by virtue of the schema and architecture of the database and the associated business logic and stored processes. And in any event, all this "difference" really tells us is that Mr. Wynter has not built a user interface *yet.* I believe, based on conversations I have had with Mr. Wynter, that he is planning to build (or has already built) a user interface for his golden copy. Notably, he does not state that he has not built a user interface, and he does not state that he does not intend to build a user interface. He states only that *Lipper* does not have it.

26.   Second, Mr. Wynter also distinguishes his golden copy from Paladyne's Golden Copy on the ground that Paladyne's Golden Copy accommodates information for which subscription pricing and terms is not available (such as swaps and baskets) and STPenable's golden copy does not. *Wynter Decl. at ¶40.* Again, we have no way to assess the truth of this statement without access to his golden copy. But even if true, all we know is that STPenable's golden copy does not accommodate this information *yet.* As with the user interface claim, he does not say that he does not *intend* to continue to build and develop and improve his golden copy; presumably that is his intent. And we believe he will do so with the benefit of and in reliance on our trade secrets.

27.   In fact, Advent Software's products heavily support all non-listed instruments and Advent would fully expect and intend to include support for all such instruments in their golden copy that they intend to acquire from STPenable. The fact that Advent made an offer (which STPenable accepted) to purchase the business *including his golden copy* suggests that it is very much in Mr. Wynter's plan to expand his current golden copy to include these non-public securities.

28.   Third, Mr. Wynter claims that his golden copy differs from Paladyne's Golden Copy because he uses "standard query language" [sic] to communicate between Transformer and the golden copy database whereas Paladyne uses Microsoft SQL Server database stored procedures. *Wynter Decl. at ¶¶ 37-38.* This is a distinction without a difference. What matters is the business logic, the rules governing the movement and normalization of the data, and the organization and mapping of where to send the data, *not the language in which these concepts, rules, logic and mapping are expressed.* There are off the shelf tools that can aid in automating such translation. Additionally, any experienced SQL programmer can easily perform this task.

29.   Moreover, the content of stored procedures is written in structured query language which can easily be taken out of the database and placed inside a third party tool such as Transformer (or any other source code) by a simple cut and paste operation. For Mr. Wynter to try to assert that the location of this element is *another* architectural difference is misleading.
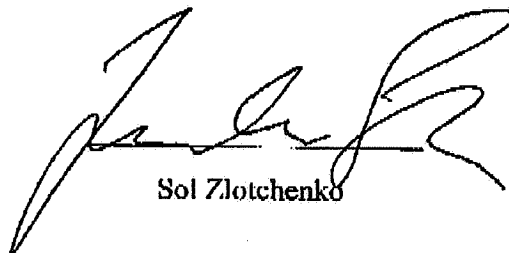
30.   With respect to this alleged cosmetic difference, Mr. Wynter claims that he had told Paladyne that he did not think it was a good idea to use stored procedures. *Wynter Decl. at ¶38.* He further stated that when created his "new" golden copy database, he did not use stored procedures. Although Mr. Wynter thinks this is evidence of a difference between the products and his own original development, it is in fact the opposite. At the time he told Paladyne he did not think stored procedures was an optimal design choice, it was a hypothesis.

By the time he began building his own golden copy database, he had the benefit of learning first hand how it worked to use these stored processes, saw his hypothesis tested, all paid for and supported by Paladyne. When he chose to substitute another language for triggering the business rules, he did so informed by confidential information learned by virtue of his confidential relationship with Paladyne.

31.   Mr. Wynter does nothing to substantiate his claim other than make conclusory unsupported assertions. For example, he states that the source of the data for each column in his golden copy is "specified in detail in a 131-page document called a 'Data Dictionary." *Wynter Decl at ¶26.* But he neither asserts that the Data Dictionary is the result of his own work or attaches it as an exhibit. He also asserts that "with respect to the remaining over 800 columns, I can specifically document an outside third-party source for 99% of them." *Wynter Decl at ¶26.* He does not however assert that he in fact used those third-party sources or, if he did, account for how these third party sources eliminate the need for anything other than uninventive implementation.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 23rd day

of October, 2007

Sol Zlotchenko

EXHIBIT A

Data Gathering